Dr. Willard Bascom National Academy of Sciences 2101 Constitution Avenue Washington 25, D.C.

## Dear Willard:

Thank you for calling me about the biological work on the Mohole. I am very much interested in the constructive use of this material. Ben Volcani also called me the next day.

As I indicated, I do not think I can accept a primary responsibility in this effort, partly as I am deeply involved in preparations for exobiology. However, I am very much interested and hope you will keep me informed. If I can help in any way please let me know. Some of the methods we develop may be useful in the course of time. I suggested to Volcani that he consider Peter Sneath as a microbiologist for the program. Sneath is in London (National Institute for Medical Research) and a British subject; but he has an unusual background and interest in the problems of paleomicrobiology. On a personal basis he could make for excellent liaison between La Jolla and ourselves.

There are several other people who have either an unusual capability or interest - perhaps both - in this area. But Ben would be the logical manager for a program that would be centered at La Jolla in its other aspects. I would suggest

Dr. Aaron Novick Department of Biophysics University of Oregon Eugene, Oregon

Dr. Philip H. Abelson Geophysical Laboratory Carnegie Institute 2801 Upton Street, N.W. Washington 8, D.C.

Dr. Raiph Burger Department of Bacteriology University of Howali Honolulu, Hawali

Dr. Seymour Hutner Haskins Laboratories 305 E. 43rd Street New York 17, New York Dr. David Rittenberg

Department of Biological Chemistry
Columbia University
New York City, New York

Dr. Erling J. Ordal
Department of Microbiology
School of Medicine
University of Washington
Seattle 5, Washington

Prof. R. E. Kallio Bepartment of Bacterial Physiology State University of Ione Iona City, Iona If you have the funds, perhaps you might wish to call an informal discussion meeting of these people to help define and alicit the most fundamental biological interests, by analogy with the exobiology committee of the Space Science Board. (Needless to say, I think Stanford would be an ideal locale for it; if you agree I would be happy to undertake the arrangements.) Among other things, the delineation and endorsement of an infra-biological program by such a group should help in justifying funds for its implementation. I would then suggest you also bring in one or two people, in addition to yourself, to brief the group on the geophysical objectives and technical restraints of the project.

If I had thought of it sooner I would have suggested planning this meeting as a joint session with exobiology (viz. inner guts and outerspace). But we are meeting on 10/29. If it doesn't come off before another six months we might still do this.

The Russians have been reasonably active in deep marine microbiology - George Derbyshire at the Space Science Board can possibly put you on to a recent book by <u>Kriss</u> in partial translation.

we may have one technical contribution to make right now - the concentration by flotation of organic particles out of sediments. Some Mariana Trench muck was actually rather rich in bacteria and in what looked to me like partly decomposed tissue fragments - cf. enclosure.

Yours sincerely,

Joshua Lederberg Professor of Genetics

Enc. 8-2.

cc: Dr. Volcani

Mr. Derbyshire